

# EUROPEAN PATENT OFFICE

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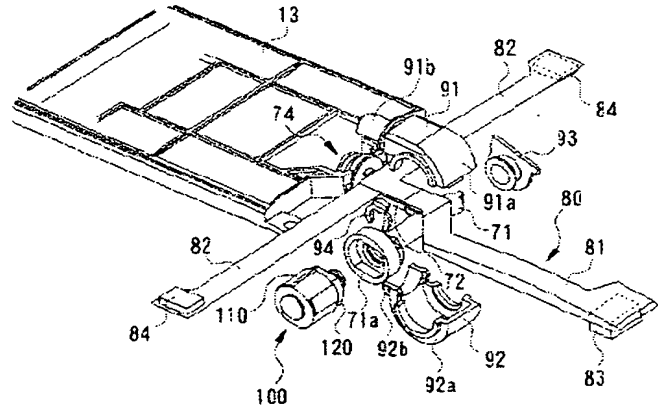
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TITLE : TWO-SHAFT STRUCTURE, FLEXIBLE  
CIRCUIT BOARD, TWO-SHAFT  
SUB-ASSEMBLY AND PORTABLE  
TERMINAL DEVICE



**ABSTRACT :** PROBLEM TO BE SOLVED: To provide a two-shaft structure capable of simplifying the wiring work between two cases, reducing the stress added to a cable for wiring, and preventing the damage/disconnection of the cable before happens, and to provide a flexible circuit board mounted inside of the two-shaft structure, a two-shaft sub-assembly comprising the two-shaft structure, and a portable terminal device.

**SOLUTION:** This two-shaft structure comprises an approximately cylindrical opening and closing shaft 71 as a center of the rotating motion of an operating part B to a display part A, and an approximately cylindrical rotating shaft as a center of the rotating motion of the display part A, connected to the opening and closing shaft 71 approximately at a right angle. The rotating shaft is composed of two pillar parts 72, 91b respectively having an approximately hemicycle cross section with a flat part. The flexible circuit board 80 is held between the pillar parts 72, 91b to constitute the two-shaft sub-assembly C. The portable terminal devices 2, 3 are constituted by using the two-shaft sub-assemblies D, E where a camera unit 60 is loaded on an intersecting part of the opening and closing shaft and the rotating shaft.

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